

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 14:54:53 ON 14 MAY 2004

=> fil .bec,fsta

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILES 'MEDLINE, SCISEARCH, LIFESCI, BIOTECHDS, BIOSIS, EMBASE, HCAPLUS, NTIS,
ESBIOBASE, BIOTECHNO, WPIDS, FSTA' ENTERED AT 14:55:27 ON 14 MAY 2004
ALL COPYRIGHTS AND RESTRICTIONS APPLY. SEE HELP USAGETERMS FOR DETAILS.

12 FILES IN THE FILE LIST

=> s glucoamylase#

FILE 'MEDLINE'

L1 1003 GLUCOAMYLASE#

FILE 'SCISEARCH'

L2 2105 GLUCOAMYLASE#

FILE 'LIFESCI'

L3 931 GLUCOAMYLASE#

FILE 'BIOTECHDS'

L4 2079 GLUCOAMYLASE#

FILE 'BIOSIS'

L5 2292 GLUCOAMYLASE#

FILE 'EMBASE'

L6 1039 GLUCOAMYLASE#

FILE 'HCAPLUS'

L7 5368 GLUCOAMYLASE#

FILE 'NTIS'

L8 29 GLUCOAMYLASE#

FILE 'ESBIOBASE'

L9 554 GLUCOAMYLASE#

FILE 'BIOTECHNO'

L10 709 GLUCOAMYLASE#

FILE 'WPIDS'

L11 917 GLUCOAMYLASE#

FILE 'FSTA'

L12 1393 GLUCOAMYLASE#

TOTAL FOR ALL FILES

L13 18419 GLUCOAMYLASE#

=> s l13(5a)(talaromyces or emersonii)

FILE 'MEDLINE'

76 TALAROMYCES

171 EMERSONII

L14 1 L1 (5A)(TALAROMYCES OR EMERSONII)

FILE 'SCISEARCH'

329 TALAROMYCES

298 EMERSONII

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L15          2 L2 (5A) (TALAROMYCES OR EMERSONII)

FILE 'LIFESCI'
    152 TALAROMYCES
    124 EMERSONII
L16          1 L3 (5A) (TALAROMYCES OR EMERSONII)

FILE 'BIOTECHDS'
    171 TALAROMYCES
    86 EMERSONII
L17          5 L4 (5A) (TALAROMYCES OR EMERSONII)

FILE 'BIOSIS'
    467 TALAROMYCES
    441 EMERSONII
L18          4 L5 (5A) (TALAROMYCES OR EMERSONII)

FILE 'EMBASE'
    103 TALAROMYCES
    156 EMERSONII
L19          1 L6 (5A) (TALAROMYCES OR EMERSONII)

FILE 'HCAPLUS'
    397 TALAROMYCES
    437 EMERSONII
L20          7 L7 (5A) (TALAROMYCES OR EMERSONII)

FILE 'NTIS'
    0 TALAROMYCES
    1 EMERSONII
L21          0 L8 (5A) (TALAROMYCES OR EMERSONII)

FILE 'ESBIOBASE'
    77 TALAROMYCES
    39 EMERSONII
L22          1 L9 (5A) (TALAROMYCES OR EMERSONII)

FILE 'BIOTECHNO'
    91 TALAROMYCES
    79 EMERSONII
L23          2 L10 (5A) (TALAROMYCES OR EMERSONII)

FILE 'WPIDS'
    87 TALAROMYCES
    12 EMERSONII
L24          4 L11 (5A) (TALAROMYCES OR EMERSONII)

FILE 'FSTA'
    59 TALAROMYCES
    18 EMERSONII
L25          0 L12 (5A) (TALAROMYCES OR EMERSONII)

TOTAL FOR ALL FILES
L26          28 L13 (5A) (TALAROMYCES OR EMERSONII)

=> s l13(5a)thermostab?
FILE 'MEDLINE'
    6051 THERMOSTAB?
L27          23 L1 (5A) THERMOSTAB?

FILE 'SCISEARCH'
    8202 THERMOSTAB?
L28          41 L2 (5A) THERMOSTAB?

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FILE 'LIFESCI'
    3675 THERMOSTAB?
L29      28 L3 (5A) THERMOSTAB?

FILE 'BIOTECHDS'
    6409 THERMOSTAB?
L30      100 L4 (5A) THERMOSTAB?

FILE 'BIOSIS'
    9840 THERMOSTAB?
L31      39 L5 (5A) THERMOSTAB?

FILE 'EMBASE'
    10819 THERMOSTAB?
L32      22 L6 (5A) THERMOSTAB?

FILE 'HCAPLUS'
    18306 THERMOSTAB?
L33      92 L7 (5A) THERMOSTAB?

FILE 'NTIS'
    185 THERMOSTAB?
L34      0 L8 (5A) THERMOSTAB?

FILE 'ESBIOBASE'
    3116 THERMOSTAB?
L35      19 L9 (5A) THERMOSTAB?

FILE 'BIOTECHNO'
    6565 THERMOSTAB?
L36      20 L10 (5A) THERMOSTAB?

FILE 'WPIDS'
    4817 THERMOSTAB?
L37      7 L11 (5A) THERMOSTAB?

FILE 'FSTA'
    1824 THERMOSTAB?
L38      32 L12 (5A) THERMOSTAB?

TOTAL FOR ALL FILES
L39      423 L13 (5A) THERMOSTAB?

=> s l13(5a)(increas? or high?)(5a)activit?
FILE 'MEDLINE'
    1858604 INCREAS?
    2075406 HIGH?
    1347764 ACTIVIT?
L40      35 L1 (5A) (INCREAS? OR HIGH?) (5A) ACTIVIT?

FILE 'SCISEARCH'
    1848724 INCREAS?
    2741253 HIGH?
    1166049 ACTIVIT?
L41      44 L2 (5A) (INCREAS? OR HIGH?) (5A) ACTIVIT?

FILE 'LIFESCI'
    473699 INCREAS?
    596158 HIGH?
    427464 ACTIVIT?
L42      43 L3 (5A) (INCREAS? OR HIGH?) (5A) ACTIVIT?

FILE 'BIOTECHDS'
    59160 INCREAS?

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          96657 HIGH?
          93132 ACTIVIT?
L43       73 L4 (5A) (INCREAS? OR HIGH?) (5A)ACTIVIT?

FILE 'BIOSIS'
          2012843 INCREAS?
          2342894 HIGH?
          1530617 ACTIVIT?
L44       72 L5 (5A) (INCREAS? OR HIGH?) (5A)ACTIVIT?

FILE 'EMBASE'
          1747812 INCREAS?
          1980114 HIGH?
          1299585 ACTIVIT?
L45       49 L6 (5A) (INCREAS? OR HIGH?) (5A)ACTIVIT?

FILE 'HCAPLUS'
          3643719 INCREAS?
          5013076 HIGH?
          2089142 ACTIVIT?
L46       158 L7 (5A) (INCREAS? OR HIGH?) (5A)ACTIVIT?

FILE 'NTIS'
          179869 INCREAS?
          442127 HIGH?
          137623 ACTIVIT?
L47       0 L8 (5A) (INCREAS? OR HIGH?) (5A)ACTIVIT?

FILE 'ESBIOBASE'
          639345 INCREAS?
          756758 HIGH?
          433265 ACTIVIT?
L48       16 L9 (5A) (INCREAS? OR HIGH?) (5A)ACTIVIT?

FILE 'BIOTECHNO'
          383544 INCREAS?
          516514 HIGH?
          386785 ACTIVIT?
L49       35 L10 (5A) (INCREAS? OR HIGH?) (5A)ACTIVIT?

FILE 'WPIDS'
          1170344 INCREAS?
          2150738 HIGH?
          280409 ACTIVIT?
L50       25 L11 (5A) (INCREAS? OR HIGH?) (5A)ACTIVIT?

FILE 'FSTA'
          116809 INCREAS?
          160058 HIGH?
          55391 ACTIVIT?
L51       53 L12 (5A) (INCREAS? OR HIGH?) (5A)ACTIVIT?

TOTAL FOR ALL FILES
L52       603 L13 (5A) (INCREAS? OR HIGH?) (5A) ACTIVIT?

=> s l52 and specific activity
FILE 'MEDLINE'
          872179 SPECIFIC
          1194533 ACTIVITY
          21683 SPECIFIC ACTIVITY
              (SPECIFIC(W)ACTIVITY)
L53       6 L40 AND SPECIFIC ACTIVITY

FILE 'SCISEARCH'

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782439 SPECIFIC
 1042083 ACTIVITY
 13370 SPECIFIC ACTIVITY
 (SPECIFIC(W)ACTIVITY)
 L54 6 L41 AND SPECIFIC ACTIVITY

 FILE 'LIFESCI'
 312403 "SPECIFIC"
 392995 "ACTIVITY"
 7603 SPECIFIC ACTIVITY
 ("SPECIFIC" (W) "ACTIVITY")
 L55 6 L42 AND SPECIFIC ACTIVITY

 FILE 'BIOTECHDS'
 58963 SPECIFIC
 88711 ACTIVITY
 4446 SPECIFIC ACTIVITY
 (SPECIFIC(W)ACTIVITY)
 L56 5 L43 AND SPECIFIC ACTIVITY

 FILE 'BIOSIS'
 896210 SPECIFIC
 1405931 ACTIVITY
 28723 SPECIFIC ACTIVITY
 (SPECIFIC(W)ACTIVITY)
 L57 8 L44 AND SPECIFIC ACTIVITY

 FILE 'EMBASE'
 785513 "SPECIFIC"
 1208124 "ACTIVITY"
 20673 SPECIFIC ACTIVITY
 ("SPECIFIC" (W) "ACTIVITY")
 L58 5 L45 AND SPECIFIC ACTIVITY

 FILE 'HCAPLUS'
 1192072 SPECIFIC
 261114 SP
 1419102 SPECIFIC
 (SPECIFIC OR SP)
 1933743 ACTIVITY
 52369 SPECIFIC ACTIVITY
 (SPECIFIC(W)ACTIVITY)
 L59 11 L46 AND SPECIFIC ACTIVITY

 FILE 'NTIS'
 112118 SPECIFIC
 58647 ACTIVITY
 810 SPECIFIC ACTIVITY
 (SPECIFIC(W)ACTIVITY)
 L60 0 L47 AND SPECIFIC ACTIVITY

 FILE 'ESBIOBASE'
 374890 SPECIFIC
 396999 ACTIVITY
 6078 SPECIFIC ACTIVITY
 (SPECIFIC(W)ACTIVITY)
 L61 3 L48 AND SPECIFIC ACTIVITY

 FILE 'BIOTECHNO'
 320652 SPECIFIC
 366432 ACTIVITY
 8442 SPECIFIC ACTIVITY
 (SPECIFIC(W)ACTIVITY)
 L62 5 L49 AND SPECIFIC ACTIVITY

FILE 'WPIDS'
 410596 SPECIFIC
 268017 ACTIVITY
 2036 SPECIFIC ACTIVITY
 (SPECIFIC(W)ACTIVITY)
 L63 2 L50 AND SPECIFIC ACTIVITY

 FILE 'FSTA'
 67356 SPECIFIC
 49657 ACTIVITY
 1375 SPECIFIC ACTIVITY
 (SPECIFIC(W)ACTIVITY)
 L64 5 L51 AND SPECIFIC ACTIVITY

 TOTAL FOR ALL FILES
 L65 62 L52 AND SPECIFIC ACTIVITY

 => s (l26 or l39 or l65) not 1999-2004/py
 FILE 'MEDLINE'
 2747374 1999-2004/PY
 L66 17 (L14 OR L27 OR L53) NOT 1999-2004/PY

 FILE 'SCISEARCH'
 5292281 1999-2004/PY
 L67 32 (L15 OR L28 OR L54) NOT 1999-2004/PY

 FILE 'LIFESCI'
 543089 1999-2004/PY
 L68 26 (L16 OR L29 OR L55) NOT 1999-2004/PY

 FILE 'BIOTECHDS'
 99472 1999-2004/PY
 L69 87 (L17 OR L30 OR L56) NOT 1999-2004/PY

 FILE 'BIOSIS'
 2913076 1999-2004/PY
 L70 32 (L18 OR L31 OR L57) NOT 1999-2004/PY

 FILE 'EMBASE'
 2419363 1999-2004/PY
 L71 20 (L19 OR L32 OR L58) NOT 1999-2004/PY

 FILE 'HCAPLUS'
 5073756 1999-2004/PY
 L72 62 (L20 OR L33 OR L59) NOT 1999-2004/PY

 FILE 'NTIS'
 92925 1999-2004/PY
 L73 0 (L21 OR L34 OR L60) NOT 1999-2004/PY

 FILE 'ESBIOBASE'
 1527928 1999-2004/PY
 L74 11 (L22 OR L35 OR L61) NOT 1999-2004/PY

 FILE 'BIOTECHNO'
 611346 1999-2004/PY
 L75 17 (L23 OR L36 OR L62) NOT 1999-2004/PY

 FILE 'WPIDS'
 4523069 1999-2004/PY
 L76 6 (L24 OR L37 OR L63) NOT 1999-2004/PY

 FILE 'FSTA'

114742 1999-2004/PY
L77 28 (L25 OR L38 OR L64) NOT 1999-2004/PY

TOTAL FOR ALL FILES

L78 338 (L26 OR L39 OR L65) NOT 1999-2004/PY

=> dup rem l78

PROCESSING COMPLETED FOR L78

L79 158 DUP REM L78 (180 DUPLICATES REMOVED)

=> d tot

L79 ANSWER 1 OF 158 MEDLINE on STN DUPLICATE 1
TI Restoration of catalytic activity beyond wild-type level in glucoamylase from *Aspergillus awamori* by oxidation of the Glu400-->Cys catalytic-base mutant to cysteinesulfinic acid.
SO Biochemistry, (1998 Mar 17) 37 (11) 3743-52.
Journal code: 0370623. ISSN: 0006-2960.
AU Fierobe H P; Mirgorodskaya E; McGuire K A; Roepstorff P; Svensson B; Clarke A J
AN 1998191334 MEDLINE

L79 ANSWER 2 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN DUPLICATE 2
TI Preparation and stability of glucoamylase immobilized on porous starch graft copolymer beads
SO CHEMICAL JOURNAL OF CHINESE UNIVERSITIES-CHINESE, (AUG 1998) Vol. 19, No. 8, pp. 1346-1348.
Publisher: HIGHER EDUCATION PRESS, SHATANHOU ST 55, BEIJING 100009, PEOPLES R CHINA.
ISSN: 0251-0790.
AU Wu Y G (Reprint); Ge Y B; Sun W T; Wang S Y; Zhou H; Li W
AN 1998:669824 SCISEARCH

L79 ANSWER 3 OF 158 MEDLINE on STN DUPLICATE 3
TI Effect on thermostability and catalytic activity of introducing disulfide bonds into *Aspergillus awamori* glucoamylase.
SO Protein engineering, (1998 Aug) 11 (8) 661-7.
Journal code: 8801484. ISSN: 0269-2139.
AU Li Y; Coutinho P M; Ford C
AN 1998420366 MEDLINE

L79 ANSWER 4 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN DUPLICATE 4
TI Purification and characterization of extracellular glucoamylase from the thermophilic *Thermomyces lanuginosus*
SO MYCOLOGICAL RESEARCH, (MAY 1998) Vol. 102, Part 5, pp. 568-572.
Publisher: CAMBRIDGE UNIV PRESS, 40 WEST 20TH STREET, NEW YORK, NY 10011-4211.
ISSN: 0953-7562.
AU Li D C (Reprint); Yang Y J; Peng Y L; Shen C Y
AN 1998:314648 SCISEARCH

L79 ANSWER 5 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN DUPLICATE 5
TI Purification and characterization of a **thermostable glucoamylase** from *Aspergillus fumigatus*
SO CANADIAN JOURNAL OF MICROBIOLOGY, (MAY 1998) Vol. 44, No. 5, pp. 493-497.
Publisher: NATL RESEARCH COUNCIL CANADA, RESEARCH JOURNALS, MONTREAL RD, OTTAWA ON K1A 0R6, CANADA.
ISSN: 0008-4166.
AU daSilva W B; Peralta R M (Reprint)
AN 1998:608265 SCISEARCH

L79 ANSWER 6 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Purification and characterization of a **thermostable glucoamylase** from *Aspergillus fumigatus*;

enzyme purification
SO Can.J.Microbiol.; (1998) 44, 5, 493-97
CODEN: CJMIAZ ISSN: 0008-4166
AU Brandani da Silva W; Peralta R M
AN 1999-02408 BIOTECHDS

L79 ANSWER 7 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Genetic and biochemical analysis of *Aspergillus awamori*
glucoamylase thermostability
SO (1997) 95 pp. Avail.: UMI, Order No. DA9814614
From: Diss. Abstr. Int., B 1998, 58(11), 5784
AU Allen, Martin John
AN 1998:216689 HCAPLUS
DN 129:37931

L79 ANSWER 8 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Enzyme conversion of starch to a high solids product;
starch liquefaction using **thermostable** alpha-amylase,
beta-amylase, **glucoamylase**, pullulanase or isoamylase
AU Shi Y C; Eden J J; Kasica J J; Jeffcoat R
AN 1998-01683 BIOTECHDS
PI EP 806434 12 Nov 1997

L79 ANSWER 9 OF 158 MEDLINE on STN DUPLICATE 6
TI Effect of introducing proline residues on the stability of *Aspergillus*
awamori.
SO Protein engineering, (1997 Oct) 10 (10) 1199-204.
Journal code: 8801484. ISSN: 0269-2139.
AU Li Y; Reilly P J; Ford C
AN 1998147468 MEDLINE

L79 ANSWER 10 OF 158 FSTA COPYRIGHT 2004 IFIS on STN
TI Review of future amylases and related enzymes.
SO Journal of Applied Glycoscience, (1997), 44 (3) 420-424
ISSN: 1340-3494
AU Komaki, T.
AN 1998(05):B0627 FSTA

L79 ANSWER 11 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Purification and characterization of **thermostable**
glucoamylase from thermophilic fungi *Thermomyces lanuginosus* A236
SO Junwu Kitong (1997), 16(4), 300-306
CODEN: JUXIFB; ISSN: 1007-3515
AU Yang, Yijun; Li, Douchuan; Yan, Kun; Peng, Youliang; Sheng, Congyao
AN 1998:707863 HCAPLUS
DN 130:135694

L79 ANSWER 12 OF 158 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 7
TI Enhanced **thermostability** of **glucoamylase** from
Aspergillus niger.
SO Dokladi na B"lgarskata Akademiya na Naukite, (1997) Vol. 50, No. 7-8, pp.
53-56. print.
ISSN: 0861-1459.
AU Tsekova, K. [Reprint author]; Vicheva, A. [Reprint author]; Tzekova, A.
[Reprint author]
AN 1999:455170 BIOSIS

L79 ANSWER 13 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Genetic construction and biochemical analysis of **thermostability**
mutants of **glucoamylase** from *Aspergillus awamori*
SO (1996) 107 pp. Avail.: Univ. Microfilms Int., Order No. DA9712579
From: Diss. Abstr. Int., B 1997, 57(11), 6761
AU Li, Yuxing

AN 1997:312851 HCAPLUS
DN 126:289888

L79 ANSWER 14 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Production of heat stable glucoamylase in yeast able to utilize starch;
Arxula adeninivorans gene cloning and expression in Saccharomyces
cerevisiae for use in starch saccharification
AU Kunze G; Gui M D; Kunze S I; Foerster S
AN 1996-03582 BIOTECHDS
PI DE 4425058 18 Jan 1996

L79 ANSWER 15 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Thermostable enzymes from sulfate-nonreducing strict anaerobic
thermophilic and hyperthermophilic bacteria
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2
IN Ollivier, Bernard; Fardeau, Marie-Laure; Robert, Herve; Ravot, Gilles;
Cayol, Jean-Luc; Magot, Michel; Garcia, Jean-Louis
AN 1996:295085 HCAPLUS
DN 124:315179

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9604366	A1	19960215	WO 1995-FR1022	19950728
	W: CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	FR 2723103	A1	19960202	FR 1994-9451	19940729
	FR 2723103	B1	19961004		

L79 ANSWER 16 OF 158 MEDLINE on STN DUPLICATE 8
TI Mutational modulation of substrate bond-type specificity and
thermostability of glucoamylase from Aspergillus awamori
by replacement with short homologue active site sequences and
thiol/disulfide engineering.
SO Biochemistry, (1996 Jul 2) 35 (26) 8696-704.
Journal code: 0370623. ISSN: 0006-2960.
AU Fierobe H P; Stoffer B B; Frandsen T P; Svensson B
AN 96266169 MEDLINE

L79 ANSWER 17 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI High-yield production of Saccharomycopsis fibuligera glucoamylase in
Escherichia coli, refolding, and comparison of the nonglycosylated and
glycosylated enzyme forms;
protein renaturation and purification from inclusion body
SO Biochem.Biophys.Res.Communic.; (1996) 224, 3, 790-95
CODEN: BBRC9 ISSN: 0006-291X
AU Solovicova A; Gasperik J; *Hostinova E
AN 1996-11971 BIOTECHDS

L79 ANSWER 18 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Effect of replacing helical glycine residues with alanines on reversible
and irreversible stability and production of Aspergillus awamori
glucoamylase;
enzyme engineering for improved thermostability and recombinant
protein secretion by Saccharomyces cerevisiae
SO Protein Eng.; (1996) 9, 6, 499-505
CODEN: PRENE9 ISSN: 0269-2139
AU Chen H; Li Y; Panda T; Buehler F U; Ford C; Reilly P J
AN 1996-09632 BIOTECHDS

L79 ANSWER 19 OF 158 FSTA COPYRIGHT 2004 IFIS on STN
TI Effect of replacing helical glycine residues with alanines on reversible
and irreversible stability and production of Aspergillus awamori
glucoamylase.
SO Protein Engineering, (1996), 9 (6) 499-505, 27 ref.

AU Hsiu-Mei Chen; Yuxing Li; Tapobrata Panda; Buehler, F. U.; Ford, C.;
 Reilly, P. J.
 AN 1996(09):B0026 FSTA

L79 ANSWER 20 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI A pullulan-degrading enzyme activity of *Aureobasidium pullulans*;
 thermostable glucoamylase-B isolation with
 pullulanase activity; importance in pullulan production
 SO J.Basic Microbiol.; (1996) 36, 5, 377-80
 CODEN: JBMIEQ ISSN: 0233-111X
 AU West T P; Strohfus B
 AN 1996-15476 BIOTECHDS

L79 ANSWER 21 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Biochemical characterization of glucoamylase from the hyperproducer exo-1
 mutant strain of *Neurospora crassa*;
 thermostable enzyme preparation, purification and properties
 SO FEMS Microbiol.Lett.; (1996) 138, 2-3, 173-77
 CODEN: FMLED7 ISSN: 0378-1097
 AU Spinelli L B B; de Lourdes M; Polizeli T M; Terenzi H F; *Jorge J A
 AN 1996-08972 BIOTECHDS

L79 ANSWER 22 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Mutagenesis for hyperproduction of extracellular amylases by *Thermomyces*
 lanuginosus;
 culture medium optimization for **thermostable** alpha-amylase
 and **glucoamylase** production from mutant
 SO Acta Microbiol.Pol.; (1996) 45, 1, 31-36
 CODEN: AMPOAX ISSN: 0001-6195
 AU Singh C B; *Arvind S S; Singh S H
 AN 1996-11355 BIOTECHDS

L79 ANSWER 23 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN DUPLICATE 9
 TI PURIFICATION AND CHARACTERIZATION OF A GLUCOAMYLASE FROM HUMICOLA-GRISEA
 SO APPLIED AND ENVIRONMENTAL MICROBIOLOGY, (JUN 1995) Vol. 61, No. 6, pp.
 2436-2438.
 ISSN: 0099-2240.
 AU CAMPOS L; FELIX C R (Reprint)
 AN 95:389577 SCISEARCH

L79 ANSWER 24 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Purification and characterization of a glucoamylase from *Humicola grisea*;
 thermostable enzyme insensitive to product inhibition
 SO Appl.Environ.Microbiol.; (1995) 61, 6, 2436-38
 CODEN: AEMIDF ISSN: 0099-2240
 AU Campos L; *Felix C R
 AN 1995-09203 BIOTECHDS

L79 ANSWER 25 OF 158 FSTA COPYRIGHT 2004 IFIS on STN
 TI Enzyme and microbial systems involved in starch processing.
 SO Enzyme and Microbial Technology, (1995), 17 (9) 770-778, 137 ref.
 ISSN: 0141-0229
 AU Poonam Nigam; Dalel Singh
 AN 1996(03):L0013 FSTA

L79 ANSWER 26 OF 158 MEDLINE on STN DUPLICATE 10
 TI Identification and elimination by site-directed mutagenesis of
 thermolabile aspartyl bonds in *Aspergillus awamori* glucoamylase.
 SO Protein engineering, (1995 Jun) 8 (6) 575-82.
 Journal code: 8801484. ISSN: 0269-2139.
 AU Chen H M; Ford C; Reilly P J
 AN 96081441 MEDLINE

L79 ANSWER 27 OF 158 FSTA COPYRIGHT 2004 IFIS on STN

TI Identification and elimination by site-directed mutagenesis of
 thermolabile aspartyl bonds in *Aspergillus awamori* glucoamylase.
 SO Protein Engineering, (1995), 8 (6) 575-582, 42 ref.
 AU Hsiu-Mei Chen; Ford, C.; Reilly, P. J.
 AN 1995(11):B0017 FSTA

L79 ANSWER 28 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Molecular cloning and transcriptional analysis of the *Aspergillus terreus*
 glal gene encoding a glucoamylase;
 thermostable enzyme DNA sequence; use in starch saccharification
 SO Appl.Environ.Microbiol.; (1995) 61, 1, 399-402
 CODEN: AEMIDF ISSN: 0099-2240
 AU Ventura L; Gonzalez-Candelas L; Perez-Gonzalez J A; *Ramon D
 AN 1995-04836 BIOTECHDS

L79 ANSWER 29 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Stability of immobilized amyloglucosidase in the process of cassava
 starch saccharification;
Aspergillus niger **thermostable glucoamylase**
 immobilization on a controlled pore glass support, and effect of
 temperature on enzyme deactivation (conference paper)
 SO Appl.Biochem.Biotechnol.; (1995) 51-52, 253-62
 CODEN: ABIBDL ISSN: 0273-2289
 Biotechnology for Fuels and Chemicals, 16th Symposium, Gatlinburg,
 Tennessee, 9-13 May, 1994.
 AU Zanin G M; de Moraes F F
 AN 1995-11095 BIOTECHDS

L79 ANSWER 30 OF 158 MEDLINE on STN DUPLICATE 11
 TI Characterization, subsite mapping and partial amino acid sequence of
 glucoamylase from the filamentous fungus *Trichoderma reesei*.
 SO Biotechnology and applied biochemistry, (1995 Apr) 21 (Pt 2) 223-31.
 Journal code: 8609465. ISSN: 0885-4513.
 AU Fagerstrom R; Kalkkinen N
 AN 95234218 MEDLINE

L79 ANSWER 31 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Identification, characterization, and partial purification of
 glycoamylase from *Aspergillus niger* (syn *A. ficuum*) NRRL 3135;
 enzyme isolation and properties
 SO Prep.Biochem.; (1995) 25, 1-2, 29-55
 CODEN: PRBCBQ ISSN: 0032-7484
 AU Vandersall A S; Cameron R G; Nairn III C J; Yelenosky G; Wodzinski R J
 AN 1995-07354 BIOTECHDS

L79 ANSWER 32 OF 158 FSTA COPYRIGHT 2004 IFIS on STN
 TI Site-directed mutagenesis to enhance **thermostability** of
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L79 ANSWER 36 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
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- AU Yakovlev A N; Zhrebtsov N A; Grigorov V S; Ruadze I D
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alpha-amylase, **glucoamylase**, pullulanase,
thermostable glucose-isomerase, amylopullulanase and
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alcohol (conference abstract)
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enzyme isolation and characterization

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CODEN: JFBIEX

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recombinant **thermostable glucoamylase** expression
in Saccharomyces cerevisiae, and purification and characterization;
glycosylation effect
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recombinant thermostable enzyme characterization and enzyme stabilization by removal of deamidating site (conference abstract)
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 CODEN: PIXXD2
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	W: CA, FI, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	EP 578672	A1	19940119	EP 1992-907192	19920313
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	JP 06505632	T2	19940630	JP 1992-506824	19920313
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L79 ANSWER 56 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
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 glucoamylase-catalyzed oligosaccharide synthesis;
 beta-galactosidase and **glucoamylase** activity and
thermostability examined in 66 organic solvent based systems
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 amaranth starches;
 using **thermostable** alpha-amylase and **glucoamylase**
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 CODEN: STARDD
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L79 ANSWER 58 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
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 gluco-oligosaccharide and hetero-oligosaccharide production by
 Penicillium **emersonii** **glucoamylase**-catalyzed
 condensation
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 and overproduction of Humicola glucoamylase;
 thermostable enzyme over-production
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 TI Examination in starch degradation using technical enzyme preparations in
 bioethanol production;
 ethanol production by starch saccharification optimization using
 commercial **thermostable** alpha-amylase, **glucoamylase**
 , barley malt or OPTIMALT combination (conference paper)
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use of immobilized Aspergillus niger glucoamylase in starch
saccharification
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CODEN: ABIBDL
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L79 ANSWER 63 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
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e.g. development of new barley varieties, thermostable enzyme
application and improved process design (conference paper)
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Clostridium thermosaccharolyticum;
thermostable enzyme isolation and characterization
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G0005;
isolation and characterization
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 TI Purification and characterization of glucoamylase of *Aspergillus terreus*
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 obtained by multi-step mutagenesis
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 CODEN: JABAA4
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 enzyme characterization
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 CODEN: JABAA4
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L79 ANSWER 72 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
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 extremely thermophilic eubacterium *Thermotoga maritima*;
thermostable alpha-amylase, beta-amylase and
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 CODEN: FEBLAL
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L79 ANSWER 73 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
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Saccharomycopsis fibuligera;
thermostable alpha-amylase and **glucoamylase**
 isolation
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 CODEN: IJBOBV
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 AN 1991-01716 BIOTECHDS

L79 ANSWER 74 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI New gene cloning, vector and transformant;
Aspergillus usarii mut. *shirousarii* acid-tolerant glucoamylase
 expression in *Saccharomyces cerevisiae* and *Aspergillus oryzae*;
 potential rice saccharification and ethanol production
 AN 1990-10899 BIOTECHDS
 PI JP 02119779 7 May 1990

L79 ANSWER 75 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Optimal heat-induced conformation for *Aspergillus glucoamylase* activity;
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thermostability (conference paper)
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CODEN: ANYAA9
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L79 ANSWER 76 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
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fungi;
fungus screening for starch saccharification activity; Thermoascus
crustaceus **thermostable glucoamylase** activity
characterization
SO Can.J.Microbiol.; (1990) 36, 9, 625-30
CODEN: CJMIAZ
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L79 ANSWER 77 OF 158 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
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Sulfolobus solfataricus;
glucose production from starch saccharification by
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CODEN: BILED3
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purification and properties of the enzyme
SO FEMS Microbiol.Lett.; (1990) 66, 1-3, 345-50
CODEN: FMLED7
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L79 ANSWER 80 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
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haploidization using hybrids from protoplast fusions;
thermostable glucoamylase purification and
characterization; protoplast fusion
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CODEN: JBMIEQ
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L79 ANSWER 81 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Recent results of amylolytic enzymes research;
Aspergillus niger and Bacillus licheniformis strain improvement for
thermostable alpha-amylase and glucoamylase
production; UV-irradiation mutagenesis, selection, transformation or
protoplast fusion
SO Acta Aliment.Acad.Sci.Hung.; (1990) 19, 2, 210-11
CODEN: AAASCO
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AN 1990-14946 BIOTECHDS

L79 ANSWER 82 OF 158 MEDLINE on STN DUPLICATE 27
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L79 ANSWER 83 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
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L79 ANSWER 84 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Characterization of a glucoamylase immobilized on chitin; particle support and comparison with free enzyme
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L79 ANSWER 85 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI **Thermostable glucoamylase** production from *Trichosporon adeninovorans*; extracellular enzyme production for conversion of starch to glucose
 AN 1989-12853 BIOTECHDS
 PI DD 265163 22 Feb 1989

L79 ANSWER 86 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI *Saccharomyces cerevisiae* cloning vehicles; plasmid vector containing gene encoding **thermostable glucoamylase**
 AN 1990-02950 BIOTECHDS
 PI US 4870014 26 Sep 1989

L79 ANSWER 87 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Stabilizer for enzyme; use of cyclodextrin for enzyme stabilization of glycosidase, e.g. **thermostable glucoamylase** or cyclomaltodextrin-glucanotransferase preparation
 AN 1989-11079 BIOTECHDS
 PI JP 01117786 10 May 1989

L79 ANSWER 88 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
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 AN 1989-10519 BIOTECHDS
 PI JP 01104173 21 Apr 1989

L79 ANSWER 89 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
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 AN 1989-09277 BIOTECHDS
 PI JP 01085076 30 Mar 1989

L79 ANSWER 90 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
 TI Improved method for preparing high-maltose conversion syrups

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 DN 111:56041

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 thermostable enzyme (conference paper)
 SO Appl.Biochem.Biotechnol.; (1989) 20-21, 293-308
 CODEN: ABIBDL
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L79 ANSWER 92 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
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 industrial development and potential, review
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 CODEN: STARDD
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 citric acid production
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 CODEN: KPRSAG
 AU Georgieva M; Alexieva K; Gantchev I
 AN 1989-09062 BIOTECHDS

L79 ANSWER 94 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Tailoring enzyme systems for food processing;
thermostable alpha-amylase, **glucoamylase**,
 debranching enzyme, glucose-isomerase, protease, beta-galactosidase,
 chymosin and lipase enzyme engineering; baking and dairy industry
 (conference paper)
 SO Biocatal.Agric.Biotechnol.; (1989) ACS Symp.Ser.389, 24-43
 AU Spradlin J E
 AN 1990-05349 BIOTECHDS

L79 ANSWER 95 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Coproduction of amylases, pullulanase and ethanol;
 beta-amylase and glucoamylase production by coculture of mutant
 strains of *Clostridium thermosulfurogenes* and *Clostridium*
thermohydrosulfuricum
 AN 1988-07275 BIOTECHDS
 PI US 4737459 12 Apr 1988

L79 ANSWER 96 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI **Thermostable** and acid-resistant **glucoamylase**;
 from *Clostridium* sp., application with alpha-amylase to starch
 saccharification, reactor for glucose production
 AN 1988-04499 BIOTECHDS
 PI EP 255124 3 Feb 1988

L79 ANSWER 97 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 TI Preparation of dextrose (glucose) and maltose syrups;
 liquid starch saccharification by new **thermostable**
 pullulanase and **glucoamylase** or maltose-producing enzyme
 derived from rice
 AN 1988-06658 BIOTECHDS
 PI US 4734364 29 Mar 1988

L79 ANSWER 98 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN

TI System for manufacturing heat-resistant glucoamylase;
thermostable glucoamylase produced by Clostridium
species

AN 1988-11553 BIOTECHDS
PI JP 38169986 Bg 13 Jul 1988

L79 ANSWER 99 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Manufacturing of heat-resistant glucoamylase;
by culturing thermophilic Clostridium maltorigo

AN 1988-10982 BIOTECHDS
PI JP 38164886 Bg 8 Jul 1988

L79 ANSWER 100 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI **Thermostable** and acid-resistant **glucoamylase**;
produced by Clostridium sp.

AN 1988-06303 BIOTECHDS
PI JP 38039577 Ba 20 Feb 1988

L79 ANSWER 101 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI **Thermostable glucoamylase** production and
characterization;
by Clostridium sp. culture

AN 1988-06300 BIOTECHDS
PI JP 38036778 Bg 17 Feb 1988

L79 ANSWER 102 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Apparatus for manufacturing **thermostable glucoamylase**
with Clostridium

SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF

IN Haga, Ryoichi; Tsuchiya, Masami; Ishida, Masahiko
AN 1989:438007 HCAPLUS
DN 111:38007

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63169986	A2	19880713	JP 1987-422	19870107

L79 ANSWER 103 OF 158 LIFESCI COPYRIGHT 2004 CSA on STN DUPLICATE 32
TI Effect of alpha -cyclodextrin on **thermostability** of
glucoamylase.

SO AGRIC. BIOL. CHEM., (1988) vol. 52, no. 4, pp. 1073-1074.
AU Ezure, Y.; Maruo, S.; Kojima, M.; Yamashita, H.; Sugiyama, M.
AN 88:96786 LIFESCI

L79 ANSWER 104 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
TI EFFECT OF ALPHA-CYCLODEXTRIN ON **THERMOSTABILITY OF**
GLUCOAMYLASE

SO AGRICULTURAL AND BIOLOGICAL CHEMISTRY, (1988) Vol. 52, No. 4, pp.
1073-1074.

AU EZURE Y (Reprint); MARUO S; KOJIMA M; YAMASHITA H; SUGIYAMA M
AN 88:250213 SCISEARCH

L79 ANSWER 105 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Effects of microenvironment on immobilized enzymes - shift of pH optimum

SO Shengwu Huaxue Zazhi (1988), 4(5), 414-19
CODEN: SHZAE4; ISSN: 1000-8543

AU Zhou, Hui; Cha, Xiao; Li, Wei; Shen, Jiacong
AN 1989:53728 HCAPLUS
DN 110:53728

L79 ANSWER 106 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Selection of microscopic fungi producing glucoamylase;
Aspergillus awamori, Mucor, Rhizopus, Trichothecium spp.

SO Mikrobiologiya; (1988) 57, 3, 405-09

CODEN: MIKBA5

AU Kvachadze L L; Kutateladze L Y; Kvesitadze G I
AN 1988-09579 BIOTECHDS

L79 ANSWER 107 OF 158 MEDLINE on STN DUPLICATE 33
TI Purification and characterization of a highly thermostable novel
pullulanase from *Clostridium thermohydrosulfuricum*.
SO Biochemical journal, (1988 Jun 1) 252 (2) 343-8.
Journal code: 2984726R. ISSN: 0264-6021.
AU Saha B C; Mathupala S P; Zeikus J G
AN 88326243 MEDLINE

L79 ANSWER 108 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Chemical stabilization of glucoamylase from *Aspergillus niger* against
thermal inactivation;
covalent coupling to a soluble oxidized polysaccharide following
introduction of addition amino groups
SO Biotechnol.Bioeng.; (1988) 31, 3, 267-77
CODEN: BIBIAU
AU Lenders J P; *Crichton R R
AN 1988-04486 BIOTECHDS

L79 ANSWER 109 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI The properties of glucoamylase soluble and immobilized on DEAE-cellulose:
Part II. **Thermostability of glucoamylase;**
from *Aspergillus niger*
SO Starch; (1988) 40, 5, 171-74
CODEN: STARDD
AU Przybyt M; Sugier H
AN 1988-08215 BIOTECHDS

L79 ANSWER 110 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
TI THE PROPERTIES OF GLUCOAMYLASE SOLUBLE AND IMMOBILIZED ON DEAE-CELLULOSE
.2. **THERMOSTABILITY OF GLUCOAMYLASE**
SO STARCH-STARKE, (1988) Vol. 40, No. 5, pp. 171-174.
AU PRZYBYT M (Reprint); SUGIER H
AN 88:330188 SCISEARCH

L79 ANSWER 111 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Purification and properties of an extracellular glucoamylase from a
diastatic strain of *Saccharomyces cerevisiae*;
potential application to direct ethanol or biomass production
SO Biochem.J.; (1988) 249, 1, 163-70
CODEN: BIJOAK
AU Kleinman M J; Wilkinson A E; Wright I P; *Evans I H; Bevan E A
AN 1988-03581 BIOTECHDS

L79 ANSWER 112 OF 158 LIFESCI COPYRIGHT 2004 CSA on STN DUPLICATE 36
TI Biosynthesis of glucoamylase and alpha -amylase by the thermotolerant
fungus *Aspergillus awamori* .
SO PRIKL. BIOKHM. MIKROBIOL., (1988) vol. 24, no. 1, pp. 80-86.
AU Korshunov, V.V.; Loginova, L.G.
AN 88:110431 LIFESCI

L79 ANSWER 113 OF 158 LIFESCI COPYRIGHT 2004 CSA on STN
TI Regulation and enhancement of enzyme production.
SO (1988) . US Cl. 435/162; Int. Cl. C12N 9/34, 9/44, 9/22, C12P 7/14..
AU Zeikus, J.G.; Hyun, H.-H.
AN 88:1879 LIFESCI

L79 ANSWER 114 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Immobilization of alpha-galactosidase and glucoamylases on crosslinked
chitosan beads;
thermostable alpha-galactosidase and glucoamylase

immobilization on chitosan support; use in continuous reactor for
raffinose and starch saccharification (conference abstract)

SO Chitin+Chitosan; (1988) P41
AU Ohtakara A; Mukerjee G; Mitsutomi M
AN 1990-11529 BIOTECHDS

L79 ANSWER 115 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI A preparatory method for **thermostable glucoamylase**;
by Aspergillus kawachi culture
AN 1987-05129 BIOTECHDS
PI JP 62006678 13 Jan 1987

L79 ANSWER 116 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI New **thermostable** forms of pullulanase and **glucoamylase**
; production and characterization;
from Clostridium thermohydrosulfuricum; useful for starch conversion
to glucose etc. using alpha- and beta-amylases, and to ethanol
AN 1986-06623 BIOTECHDS
PI WO 8601831 27 Mar 1986

L79 ANSWER 117 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Thermostable starch converting enzymes from Clostridium
thermohydrosulfuricum;
pullulanase and glucoamylase; for use in starch saccharification
AN 1987-03422 BIOTECHDS
PI US 4628031 9 Dec 1986

L79 ANSWER 118 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Co-culture production of **thermostable** beta-amylase,
glucoamylase and pullulanase and ethanol from starch;
using Clostridium thermosulfurogenes and Clostridium
thermohydrosulfuricum
AN 1986-11536 BIOTECHDS
PI US 4604352 5 Aug 1986

L79 ANSWER 119 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI New **thermostable** amyloglucosidase (**glucoamylase**) from
Talaromyces thermophilus;
with biphasic decay characteristics; useful for conversion of
partially hydrolyzed starch to glucose in a continuous process
AN 1986-08237 BIOTECHDS
PI US 4587215 6 May 1986

L79 ANSWER 120 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI New strain Bacillus subtilis;
for the production of pullulanase
AN 1986-12234 BIOTECHDS
PI JP 61162169 22 Jul 1986

L79 ANSWER 121 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Highly **thermostable glucoamylase** and process for its
production;
using Talaromyces leycettanus
AN 1986-08774 BIOTECHDS
PI US RE32153 20 May 1986

L79 ANSWER 122 OF 158 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
TI Co-production of ethanol and thermostable amylolytic enzymes - by cultivating
mixture of clostridium thermosulfurogenes and c.thermohydrosulfuricum.
PI WO 8601833 A 19860327 (198614)* EN 18
RW: BE DE FR GB NL SE
W: DK FI JP
US 4604352 A 19860805 (198634)
EP 195049 A 19860924 (198639) EN

R: BE DE FR GB NL SE
IN HYUN, H H; ZEIKUS, J G

L79 ANSWER 123 OF 158 FSTA COPYRIGHT 2004 IFIS on STN
TI Enzymes used for shochu making.
SO Journal of the Japanese Society of Starch Science [Denpun Kagaku], (1986),
33 (2) 104-111, 32 ref.
AU Iwano, K.
AN 1987(03):H0042 FSTA

L79 ANSWER 124 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI **Thermostable glucoamylase** and method for its
production;
isolation from Clostridium thermoamylolyticum; use in glucose syrup
production
AN 1985-12368 BIOTECHDS
PI US 4536477 20 Aug 1985

L79 ANSWER 125 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI New glucoamylase enzyme for production of glucose from starch;
is obtained from Clostridium thermoamylolyticum
AN 1985-05688 BIOTECHDS
PI GB 2145094 20 Mar 1985

L79 ANSWER 126 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI **Thermostable glucoamylase**
SO Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW
IN Katkocin, Dennis M.; Word, Nancy S.; Yang, Shioh Shong
AN 1985:202606 HCAPLUS
DN 102:202606

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 135138	A2	19850327	EP 1984-109640	19840813
	EP 135138	A3	19860625		
	R: AT, BE, CH, DE, FR, IT, LI, NL, SE				
	US 4536477	A	19850820	US 1983-524070	19830817
	IN 160378	A	19870711	IN 1984-MA442	19840618
	ZA 8405184	A	19850227	ZA 1984-5184	19840705
	FI 8402916	A	19850218	FI 1984-2916	19840719
	JP 60054680	A2	19850329	JP 1984-164348	19840807
	AU 8431708	A1	19850221	AU 1984-31708	19840808
	AU 575844	B2	19880811		
	CA 1221326	A1	19870505	CA 1984-461085	19840815
	DK 8403932	A	19850218	DK 1984-3932	19840816
	GB 2145094	A1	19850320	GB 1984-20820	19840816
	GB 2145094	B2	19870708		
	ES 535210	A1	19850616	ES 1984-535210	19840816
	ES 538272	A1	19850901	ES 1984-538272	19841205

L79 ANSWER 127 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN DUPLICATE
39
TI GENERAL BIOCHEMICAL-CHARACTERIZATION OF **THERMOSTABLE** PULLULANASE
AND **GLUCOAMYLASE** FROM CLOSTRIDIUM-THERMOHYDROSULFURICUM
SO APPLIED AND ENVIRONMENTAL MICROBIOLOGY, (1985) Vol. 49, No. 5, pp.
1168-1173.
AU HYUN H H; ZEIKUS J G (Reprint)
AN 85:269764 SCISEARCH

L79 ANSWER 128 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Differential amylosaccharide metabolism of Clostridium thermosulfurogenes
and Clostridium thermohydrosulfuricum;
enzyme activity analysis; potential application of thermostable
amylase and ethanol production

SO J.Bacteriol.; (1985) 164, 3, 1153-61
CODEN: JOBAAY

AU Hyun H H; Shen G-J; *Zeikus J G
AN 1986-01977 BIOTECHDS

L79 ANSWER 129 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Purification and characterization of glucoamylase from a higher yielding mutant of *Aspergillus candidus* Link var. *aureus*
SO Applied Microbiology and Biotechnology (1985), 22(3), 181-6
CODEN: AMBIDG; ISSN: 0175-7598
AU Kolhekar, Suhas R.; Mahajan, Pramod B.; Ambedkar, Sudha S.; Borkar, Prabhakar S.
AN 1985:500769 HCAPLUS
DN 103:100769

L79 ANSWER 130 OF 158 LIFESCI COPYRIGHT 2004 CSA on STN
TI **Thermostable glucoamylase** and method for its production.
SO (1985) . US Cl. 435/205; Int. Cl. C12N 9/34, C12P 19/20, C12R 1/145..
AU Katkocin, D.M.; Word, N.S.; Yang, S.-S.
AN 85:16943 LIFESCI

L79 ANSWER 131 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Complex biotechnological plant with a processing capacity of 400 tons daily of native corn;
at Szabadegyhaza, Hungary for sugar and alcohol production; amylolytic enzyme application (conference paper)
SO Eur.Congr.Biotechnol; (1984) 3 Meet., Vol.3, 469-78
AU Hollo J; Laszlo E; Hoschke A; Bende P; Bolgar P; Wieg A
AN 1986-07041 BIOTECHDS

L79 ANSWER 132 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
TI Adsorption of glucoamylase on DEAE-cellulose;
immobilization and use in starch saccharification
SO Starch; (1983) 35, 12, 427-30
CODEN: STARDD
AU Jach M; Sugier H
AN 1984-02880 BIOTECHDS

L79 ANSWER 133 OF 158 MEDLINE on STN DUPLICATE 40
TI Studies on the intestinal disaccharidases of the pigeon. III. Separation, purification and properties of sucrase-isomaltase and maltase-glucoamylase.
SO Archives internationales de physiologie et de biochimie, (1983 Dec) 91 (5) 379-90.
Journal code: 0405355. ISSN: 0003-9799.
AU Prakash K; Patil S D; Hegde S N
AN 84255899 MEDLINE

L79 ANSWER 134 OF 158 FSTA COPYRIGHT 2004 IFIS on STN
TI Highly **thermostable glucoamylase** and process for its production.
SO United States Patent, (1981)
IN Tamura, M.; Shimizu, M.; Tago, M.
AN 1981(11):G0801 FSTA
PI US 4247637

L79 ANSWER 135 OF 158 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
TI EXOGENOUS GLUCO AMYLASES OF MOLDS OF THE ASPERGILLUS GENUS.
SO Prikladnaya Biokhimiya i Mikrobiologiya, (1981) Vol. 17, No. 4, pp. 569-574.
CODEN: PBMIAK. ISSN: 0555-1099.
AU KVESITADZE G I [Reprint author]; VORONTSOVA N N; GONCHAROVA O N; KORIDZE V V; DVADTSATOVA E A; KVACHADZE L L

AN 1982:247872 BIOSIS

L79 ANSWER 136 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI A study of the amylolytic system of Schwanniomyces castelii
SO Zeitschrift fuer Allgemeine Mikrobiologie (1981), 21(7), 537-44
CODEN: ZAPOAK; ISSN: 0044-2208
AU Oteng-Gyang, K.; Moulin, G.; Galzy, P.
AN 1982:65370 HCAPLUS
DN 96:65370

L79 ANSWER 137 OF 158 MEDLINE on STN DUPLICATE 41
TI Purification and characterization of a **thermostable glucoamylase** from the thermophilic fungus Thermomyces lanuginosus.
SO Biochemical journal, (1981 Feb 1) 193 (2) 379-87.
Journal code: 2984726R. ISSN: 0264-6021.
AU Basaveswara Rao V; Sastri N V; Subba Rao P V
AN 82067973 MEDLINE

L79 ANSWER 138 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 42
TI Purification and characterization of a **thermostable glucoamylase** from the thermophilic fungus Thermomyces lanuginosus
SO Biochemical Journal (1981), 193(2), 379-87
CODEN: BIJOAK; ISSN: 0306-3275
AU Baseveswara Rao, V.; Sastri, N. V. S.; Subba Rao, P. V.
AN 1981:204318 HCAPLUS
DN 94:204318

L79 ANSWER 139 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
TI PURIFICATION AND CHARACTERIZATION OF A **THERMOSTABLE GLUCOAMYLASE** FROM THE THERMOPHILIC FUNGUS THERMOMYCES-LANUGINOSUS
SO BIOCHEMICAL JOURNAL, (1981) Vol. 193, No. 2, pp. 379-387.
AU RAO V B (Reprint); SASTRI N V S; RAO P V S
AN 81:75111 SCISEARCH

L79 ANSWER 140 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 43
TI A novel highly **thermostable glucoamylase** and process for its production
SO Brit. UK Pat. Appl., 10 pp.
CODEN: BAXXDU
IN Tamura, Masaki; Shimizu, Mizuho; Tago, Minoru
AN 1980:602706 HCAPLUS
DN 93:202706

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 2029835	A	19800326	GB 1979-30311	19790831
	GB 2029835	B2	19821110		
	JP 55034046	A2	19800310	JP 1978-106354	19780901
	JP 61055948	B4	19861129		
	US 4247637	A	19810127	US 1979-55723	19790709
	AU 7949490	A1	19800306	AU 1979-49490	19790802
	AU 528159	B2	19830414		
	IN 154830	A	19841215	IN 1982-CA1413	19821206
	US 32153	E	19860520	US 1985-761930	19850802

L79 ANSWER 141 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Thermal stability of immobilized glucoamylase in the presence of a substrate
SO Agricultural and Biological Chemistry (1980), 44(11), 2737-9
CODEN: ABCHA6; ISSN: 0002-1369
AU Moriyama, Shigeru; Kataoka, Satoru; Nakanishi, Kazuhiro; Matsuno, Ryuichi; Kamikubo, Tadashi
AN 1981:43296 HCAPLUS
DN 94:43296

L79 ANSWER 142 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
 TI Thermal stability of immobilized glucoamylase entrapped in polyacrylamide
 gels and bound to SP-Sephadex C-50
 SO Agricultural and Biological Chemistry (1980), 44(9), 2047-54
 CODEN: ABCHA6; ISSN: 0002-1369
 AU Moriyama, Shigeru; Noda, Atsufumi; Nakanishi, Kazuhiro; Matsuno, Ryuichi;
 Kamikubo, Tadashi
 AN 1980:600138 HCAPLUS
 DN 93:200138

L79 ANSWER 143 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
 TI INFLUENCE OF GRADUAL CHEMICAL MODIFICATION ON ACTIVITY AND
THERMOSTABILITY OF SOLUBLE AND IMMOBILIZED GLUCOAMYLASE
 SO BIOCHEMISTRY-USSR, (1980) Vol. 45, No. 6, pp. 826-830.
 AU GERASIMAS V B (Reprint); CHERNOGLAZOV V M; KLESOV A A
 AN 81:22214 SCISEARCH

L79 ANSWER 144 OF 158 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
 TI AMPHIBIAN INTESTINAL BRUSH BORDER MEMBRANES 2. ISOLATION FROM
 RANA-CATESBEIANA ADULT.
 SO Comparative Biochemistry and Physiology B, (1980) Vol. 66, No. 1, pp.
 111-116.
 CODEN: CBPBB8. ISSN: 0305-0491.
 AU DAUCA M [Reprint author]; HOUDRY J; HUGON J S; MENARD D
 AN 1980:243374 BIOSIS

L79 ANSWER 145 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 44
 TI Enzymic preparation of **glucoamylase** with a high
thermostability
 SO Belg., 21 pp.
 CODEN: BEXXAL
 AN 1980:196396 HCAPLUS
 DN 92:196396

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	BE 878466	A1	19791217	BE 1979-58030	19790828
	JP 55034046	A2	19800310	JP 1978-106354	19780901
	JP 61055948	B4	19861129		
	CA 1128885	A1	19820803	CA 1979-332546	19790725
	NL 7906265	A	19800304	NL 1979-6265	19790817
	ES 483741	A1	19800416	ES 1979-483741	19790830
	ES 483735	A1	19800816	ES 1979-483735	19790830
	DK 7903651	A	19800302	DK 1979-3651	19790831
	DK 146631	B	19831121		
	DK 146631	C	19840507		
	DE 2935315	A1	19800313	DE 1979-2935315	19790831
	FR 2434867	A1	19800328	FR 1979-21906	19790831
	FR 2434867	B1	19860425		
	IN 151247	A	19830312	IN 1979-CA913	19790901
	IN 154830	A	19841215	IN 1982-CA1413	19821206

L79 ANSWER 146 OF 158 MEDLINE on STN DUPLICATE 45
 TI [Substrate **thermostabilization** of soluble and immobilized
glucoamylase].
 Termostabilizatsiia rastvorimoi i immobilizovannoi gliukoamilazy pod
 deistviem sybstrata.
 SO Biokhimiia (Moscow, Russia), (1979 Jun) 44 (6) 1084-92.
 Journal code: 0372667. ISSN: 0320-9725.
 AU Klesov A A; Gerasimas V B
 AN 79232767 MEDLINE

L79 ANSWER 147 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
 TI SUBSTRATE **THERMOSTABILIZATION** OF SOLUBLE AND IMMOBILIZED
GLUCOAMYLASE

SO BIOCHEMISTRY-USSR, (1979) Vol. 44, No. 6, pp. 854-861.
AU KLESOV A A (Reprint); GERASIMAS V B
AN 80:22196 SCISEARCH

L79 ANSWER 148 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Immobilization of glucoamylase and acid proteinase on modified silochrome
using N-carbethoxy-2-ethoxy-1,2-dihydroquinoline
SO Prikladnaya Biokhimiya i Mikrobiologiya (1979), 15(5), 744-6
CODEN: PBMIK; ISSN: 0555-1099
AU Borisova, V. N.; Lomako, O. V.; Motina, L. I.; Nakhapetyan, L. A.
AN 1980:17981 HCAPLUS
DN 92:17981

L79 ANSWER 149 OF 158 MEDLINE on STN DUPLICATE 46
TI The **thermostability** of **glucoamylase** immobilized in
different ways has a certain limit.
SO Biochimica et biophysica acta, (1979 Nov 9) 571 (1) 162-5.
Journal code: 0217513. ISSN: 0006-3002.
AU Klyosov A A; Gerasimas V B
AN 80043127 MEDLINE

L79 ANSWER 150 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN DUPLICATE
47
TI **THERMOSTABLE GLUCOAMYLASE** FROM THE THERMOPHILIC FUNGUS
THERMOMYCES-LANUGINOSUS
SO CURRENT SCIENCE, (1979) Vol. 48, No. 3, pp. 113-115.
AU RAO V B (Reprint); MAHESHWARI R; SASTRY N V S; RAO P V S
AN 79:58246 SCISEARCH

L79 ANSWER 151 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
TI PURIFICATION AND PROPERTIES OF A **THERMOSTABLE**
GLUCOAMYLASE FROM THE THERMOPHILIC FUNGUS THERMOMYCES-LANUGINOSUS
SO INDIAN JOURNAL OF BIOCHEMISTRY & BIOPHYSICS, (1979) Vol. 16, No. 1, pp.
75.
AU RAO V B (Reprint); SASTRI N V S; RAO P V S
AN 79:308874 SCISEARCH

L79 ANSWER 152 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Some properties of a glucoamylase produced by the thermophilic fungus
Humicola lanuginosa
SO Carbohydrate Research (1978), 61(1), 301-8
CODEN: CRBRAT; ISSN: 0008-6215
AU Taylor, Pamela M.; Napier, Eunice J.; Fleming, I. D.
AN 1978:185087 HCAPLUS
DN 88:185087

L79 ANSWER 153 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Relation of the stability of immobilized glucoamylase to the method of
immobilization
SO Prikladnaya Biokhimiya i Mikrobiologiya (1978), 14(2), 236-42
CODEN: PBMIK; ISSN: 0555-1099
AU Sinitsyn, A. P.; Klibanov, A. M.; Klesov, A. A.; Martinek, K.
AN 1978:185344 HCAPLUS
DN 88:185344

L79 ANSWER 154 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN
TI Immobilization of glucoamylase
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
IN Oosawa, Takehiko
AN 1977:418207 HCAPLUS
DN 87:18207

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 52034979 A2 19770317 JP 1975-109150 19750909

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TI Influence of dielectric constants and ligand binding on
thermostability of glucoamylase.

SO Agricultural and Biological Chemistry, (1977) 41/10 (1985-1993).
CODEN: ABCHA6

AU Moriyama S.; Matsuno R.; Kamikubo T.

AN 78229580 EMBASE

L79 ANSWER 156 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN

TI INFLUENCE OF DIELECTRIC-CONSTANTS AND LIGAND-BINDING ON

THERMOSTABILITY OF GLUCOAMYLASE

SO AGRICULTURAL AND BIOLOGICAL CHEMISTRY, (1977) Vol. 41, No. 10, pp.
1985-1993.

AU MORIYAMA S (Reprint); MATSUNO R; KAMIKUBO T

AN 77:457594 SCISEARCH

L79 ANSWER 157 OF 158 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 49

TI IMMOBILIZATION OF ASPERGILLUS GLUCO AMYLASE ON INORGANIC CARRIERS.

SO Bioorganicheskaya Khimiya, (1977) Vol. 3, No. 6, pp. 836-841.
CODEN: BIKHD7. ISSN: 0132-3423.

AU KVESITADZE G I [Reprint author]; GVALIA T SH; SVANIDZE R S; TOKHADZE Z V;
PUTSUBIDZE N N

AN 1978:139570 BIOSIS

L79 ANSWER 158 OF 158 HCAPLUS COPYRIGHT 2004 ACS on STN

TI Intraparticle diffusion in the reaction catalyzed by immobilized
glucoamylase

SO Hakko Kogaku Zasshi (1973), 51(8), 566-74
CODEN: HKZAA2; ISSN: 0367-5963

AU Miyamoto, Kazuhisa; Fujii, Tomoko; Tamaoki, Nobuko; Okazaki, Mitsuo;
Miura, Yoshiharu

AN 1974:24314 HCAPLUS

DN 80:24314

=> save temp l79 glucoamy/a

ANSWER SET L79 HAS BEEN SAVED AS 'GLUCOAMY/A'

=> log h

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

316.86

317.07

SESSION WILL BE HELD FOR 60 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 15:12:44 ON 14 MAY 2004

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	316.86	317.07

=> d ab 52,76,92,119,121

L79 ANSWER 52 OF 158 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN DUPLICATE 22

AB The heat-resistant mold, *Talaromyces flavus*, was found to produce a thermophilic glucoamylase that exhibited the highest activity at 50-degrees-C and in the pH range of 4.0-4.8. The K(m) and V(max) values of the crude enzyme for amylopectin were 0.21% and 16.7 mg glucose l-1 min-1, respectively. The molecular weight of the enzyme as estimated by the gel filtration method was 42 kDa.

L79 ANSWER 76 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 AB Thermophilic, thermotolerant and mesophilic fungus strains were screened for production of starch saccharification enzymes with improved **thermostability** compared with industrial **glucoamylase** (EC-3.2.1.3). Soil samples were grown at 28 or 45 deg, and saccharifying and transglucosidase activity was measured at 60 and 75 deg. Among 846 strains isolated, 700 strains with significant activity were selected, comprising *Aspergillus*, *Endomycopsis*, *Mucor*, *Penicillium*, *Rhizopus* and other species. 5 Strains (2 *Thermoascus* spp. (*Thermoascus crustaceus* P6 and *Thermoascus aurantiacus* Fu 1-1), 1 strain from the *Aspergillus fumigatus* group (*Aspergillus carbonarius* Co 27) and 2 strains from the *Aspergillus niger* group (*A. niger* var. *amamori* 25-17 and *Aspergillus viridi-nutans* F 3-2)) secreted a saccharification complex of thermostable enzymes. Those from *Thermoascus* sp. were most active, and *T. crustaceus* was selected for possible industrial application. (17 ref)

L79 ANSWER 92 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 AB The biochemical and biotechnological features of microbial glucoamylases (EC-3.2.1.3) are reviewed. The occurrence and multiplicity of glucoamylase is discussed. Measurement of glucoamylase activity is considered; the enzyme is generally assayed by measuring release of glucose from soluble starch. Glucoamylase has been purified by procedures involving column fractionation including ion exchange, and hydrophobic and gel filtration chromatographic steps. Glucoamylase can be purified from contaminating enzymes by adsorption of the impurities on naturally occurring acid clays, such as bentonite. The molecular characteristics of glucoamylase are discussed, and its action on soluble and insoluble substrates is considered. Synergistical action of the enzyme with other enzymes can occur during starch hydrolysis. The development of a **thermostable glucoamylase** may be an important contribution to the starch processing industry. The cloning and expression in yeast of glucoamylase is discussed, and industrial uses are cited. Methods for immobilization of the enzyme are considered, and applications of the immobilized enzyme are discussed. (186 ref)

L79 ANSWER 119 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 AB A new **thermostable** amyloglucosidase (**glucoamylase**)
 (EC-3.2.1.3) is produced by culture of *Talaromyces thermophilus* in a
 culture medium. The enzyme shows biphasic decay at 70 deg and pH 5 in
 the absence of substrate. It shows maximum activity at pH 5.1, and is
 especially obtained from strains NRRL 15774, 15775, 15776 and 15777; the
 later being the most preferable source. (I) Is used to convert partially
 hydrolyzed starch to glucose, especially in a continuous process using
 free or immobilized (I). The enzyme has better stability than known
 enzymes. Saccharification using (I) is performed at 55-100 (60-90) deg
 at pH 4.0-6.5. *T. thermophilus* is cultured in a medium containing
 soluble starch, corn steep liquor, cottonseed meal, yeast extract and
 salts at 40 deg with shaking for 2 wk. The culture filtrate was used as
 the enzyme source. The enzyme activity obtained was higher than that
 obtained from culture of *Talaromyces duponti* G45-632. (5pp)

L79 ANSWER 121 OF 158 BIOTECHDS COPYRIGHT 2004 THOMSON DERWENT/ISI on STN
 AB A novel glucoamylase (EC-3.2.1.3) is produced by culturing cells of
Talaromyces leycettanus strain G45-632, Fermentation Research Institute
 Deposit Number 4566. This strain grows at 25-50 deg and pH 3-9, and shows
 optimal growth at 40 deg and pH 6-7. For glucoamylase production, the
 strain is grown in a culture medium containing C- and N-sources,
 inorganic salts, etc., at 30-45 deg, pH 5-8 for 3-10 days. The enzyme is
 recovered by conventional techniques. It has a mol.weight of 31,000, and
 shows maximum activity at 75 deg (10 min reaction on 2% maltodextrin at
 pH 4.5) retaining 90% or more of its initial activity at 70 deg for 10
 min at pH 4.5. The glucoamylase can be used for starch saccharification
 to dextrose. It may be immobilized and used for continuous
 saccharification of starch at 60-65 deg with high yield. (8pp)

=> log y

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
339.43	339.64

FULL ESTIMATED COST

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